

0x084084a8 [0,0]

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## STM32F100RBT6B

- different from <http://pulkomandy.tk/ / Electronique/ Discovering%20the%20STM32F3%20Discovery>

```
dpavlin@blue:~$ lsusb | grep ST
Bus 003 Device 006: ID 0483:3744 SGS Thomson Microelectronics STLINK Pseudo disk
```

## Install toolchain

```
dpkg --add-architecture i386
apt-get install libc6-i386
#wget https://launchpad.net/gcc-arm-embedded/4.7/4.7-2012-q4-major/+download/gcc-arm-none-eabi-4_
wget https://sourcery.mentor.com/GNUToolchain/package4463/public/arm-none-eabi/arm-2009q1-161-arm
```

## Install openocd

```
dpavlin@blue:~$ sudo apt-get install openocd
dpavlin@blue:~$ dpkg -l openocd
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                Version             Architecture        Description
+++-----
ii openocd                0.6.1-1            amd64               Open on-chip JTAG debug solution fo
```

## start openocd

Disable STLINKv1 SCSI emulation, see <https://github.com/texane/stlink>

```
root@blue:~# modprobe -r usb-storage && modprobe usb-storage quirks=483:3744:i
```

```
root@blue:~# sudo openocd -f /usr/share/openocd/scripts/board/stm32vldiscovery.cfg
Open On-Chip Debugger 0.6.1 (2012-12-05-01:32)
Licensed under GNU GPL v2
For bug reports, read
    http://openocd.sourceforge.net/doc/doxygen/bugs.html
adapter speed: 1000 kHz
Info : clock speed 1000 kHz
Info : stm32flx.cpu: hardware has 6 breakpoints, 4 watchpoints
```

## Open another window and connect with telnet:

```
dpavlin@blue:~$ telnet localhost 4444
Trying ::1...
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Open On-Chip Debugger
> reset init
target state: halted
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x08000b4c msp: 0x20000400
```

## summon toolchain

- <https://github.com/esden/summon-arm-toolchain>

## openocd

```
dpavlin@blue:~/sat$ sudo openocd -f /usr/share/openocd/scripts/board/stm32vldiscovery.cfg
[sudo] password for dpavlin:
Open On-Chip Debugger 0.6.1 (2012-12-05-01:32)
Licensed under GNU GPL v2
For bug reports, read
    http://openocd.sourceforge.net/doc/doxygen/bugs.html
adapter speed: 1000 kHz
Info : clock speed 1000 kHz
Info : stm32flx.cpu: hardware has 6 breakpoints, 4 watchpoints
Info : accepting 'telnet' connection from 4444
Warn : target was in unknown state when halt was requested
target state: halted
target halted due to debug-request, current mode: Thread
xPSR: 0x21000000 pc: 0x080001ce msp: 0x20001ff0
```

## From different terminal

```
dpavlin@blue:~/sat$ telnet localhost 4444
Trying ::1...
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Open On-Chip Debugger
> halt
target was in unknown state when halt was requested
```

```
target state: halted
target halted due to debug-request, current mode: Thread
xPSR: 0x21000000 pc: 0x080001ce msp: 0x20001ff0
>

> flash write_image erase /virtual/stm32discovery/libopenm3/examples/stm32/f1/stm32v1-discovery/
auto erase enabled
device id = 0x10016420
flash size = 128kbytes
target state: halted
target halted due to breakpoint, current mode: Thread
xPSR: 0x61000000 pc: 0x2000003a msp: 0x20001ff0
wrote 2048 bytes from file /virtual/stm32discovery/libopenm3/examples/stm32/f1/stm32v1-discovery
```

## Using Arduino IDE

<http://forums.leaflabs.com/topic.php?id=630>